Data Analysis Report

Executive Summary:

In this report, we conducted a comprehensive analysis of the Business Development Team's performance, addressing key tasks such as data cleaning, exploration, and visualization. The analysis provided insights into the total leads generated, leaves taken, average performance, consistency, and recommendations for improvement.

Data Analysis and Findings:

1. Data Cleaning and Exploration:

- Loaded and explored the dataset, checking for missing values and outliers.
- Summary statistics and initial observations provided a foundation for further analysis.

2. Key Metrics:

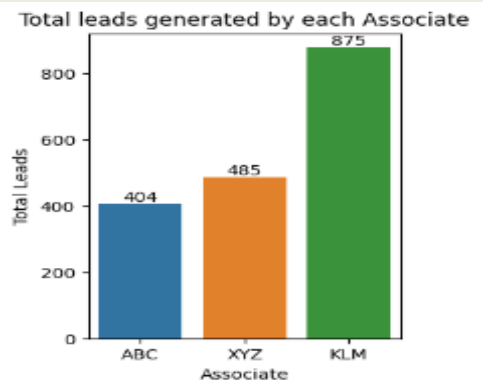
- Calculated and visualized key performance indicators (KPIs) for each associate.
- Average Leads Generated per day.
- Leaves taken, considering Saturday and Sunday as holidays.
- Average number of leads generated by each associate.

3. Handling Missing Values and Consistency Analysis:

- Explained the rationale for handling or not handling missing values.
- Identified the most consistent associate in lead generation using standard deviation.

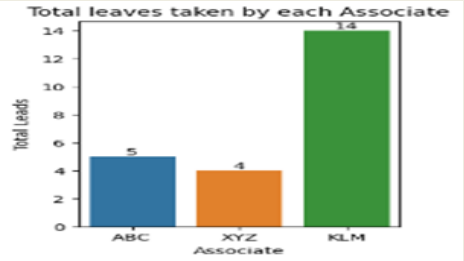
Answers to Questions:

1. Total Number of Leads Generated by Each Associate:



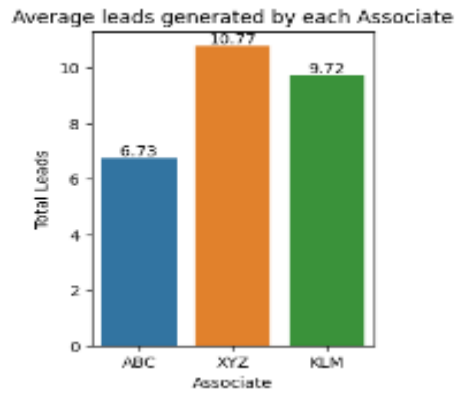
1. Associate ABC generated the lowest number of leads i.e 404 .
2. Associate XYZ generated 485 leads.
3. Associate KLM generated the highest number of leads i.e 875.

2. Total Number of Leaves Taken by Each Associate:



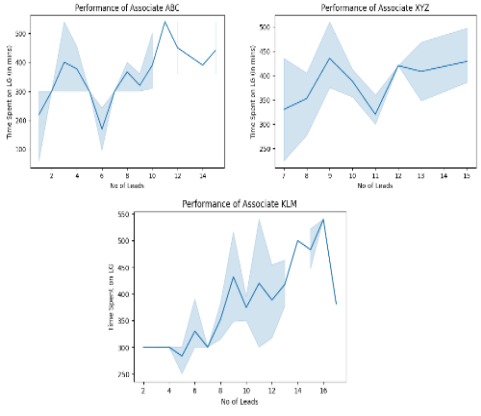
1. Associate ABC took 5 leaves.
2. Associate XYZ took 4 leaves.
3. Associate KLM took 14 leaves.

3. Average Number of Leads Generated by Each Associate:



1. Associate ABC has an average of 6.73 leads.
2. Associate XYZ has a highest average of 10.77 leads.
3. Associate KLM has an average of 9.72 leads.

4. Most Consistent Associate in Lead Generation:



The most consistent Associate in Lead Generation is Associate XYZ who has the minimum standard deviation of 2.44 and the highest average of lead generation i.e 10.77, compared to 3.38, 6.73 and 3.68, 9.72 of Associate ABC and KLM respectively.

5. Do you remove missing values from the data-set for analysis?

   No, I prefer imputing missing values using measures of central tendency such as mean and median instead of removing them. This ensures that the dataset remains comprehensive, minimizing data loss and preserving valuable information for analysis. Imputation helps maintain the integrity of the dataset while addressing missing values effectively.

Recommendations:

Based on our analysis, we recommend the following for the Business Development Team:

1. Recognize the most consistent associate to boost morale.
2. Provide additional training to associates with lower lead generation.
3. Analyse time spent patterns and implement strategies for increased productivity.

Appendix:

Code and Tools Used: Python Programming, Microsoft Excel.

Detailed Information and code is provided here - https://github.com/maazmdrahman31/Employees-Performance-Analysis

Conclusion:

This report presented a detailed analysis of the Business Development Team's performance, addressing key tasks and providing actionable insights. The visualizations and recommendations aim to guide the team toward improved efficiency and success.

End of Report.